

**LIMOMYZA, A NEW GENUS OF PRIMITIVE LIMOSININAE (DIPTERA:
SPHAEROCERIDAE), WITH FIVE NEW SPECIES FROM UNITED STATES,
MEXICO, AND CENTRAL AMERICA**

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Abstract.—The new genus *Limomyza* is described and included in the Limosiniinae primarily on the basis of its wing venation, despite the overall close similarity of *Limomyza* species to members of the Copromyzinae. Five new species of *Limomyza* are described and keyed, including the type species *L. cavernicola* from United States, *L. venia*, *L. archiptera* and *L. hirta* from Mexico, and *L. sharkeyi* from Guatemala and Mexico.

Key Words: Sphaeroceridae, Diptera, taxonomy, Limosiniinae

The new genus *Limomyza* is diagnosed on the basis of a complete cell *cup*, an open cell *bm*, a mid ventral hind tibial bristle, and a large inclinate orbital bristle between the upper exclinate orbital and inner vertical bristles. *Limomyza* challenges current subfamilial concepts in the Sphaeroceridae, because it presents an apparent mosaic of characters previously used to diagnose the subfamilies Copromyzinae and Limosiniinae. Although *Limomyza* species are generally most similar to the Copromyzinae, they show some of the reductions in wing venation characteristic of the Limosiniinae. The main lineages of Sphaeroceridae are therefore briefly reviewed below prior to description of *Limomyza* as a limosinine.

THE MAIN LINEAGES OF SPHAEROCERIDAE

The Sphaeroceridae can be broken into 3 lineages, as follows:

Tucminae.—This is the sister group to the rest of the family, and contains only the genus *Tucma* Mourgués-Schurter. *Tucma* retains a well developed male tergite 6, the loss of which appears to be a synapomor-

phy of the rest of the family (Marshall 1996).

Limosiniinae.—The Limosiniinae (including the vast majority of the species in the Sphaeroceridae) is characterised by the loss of crossvein *bm-cu* (i.e. cells *bm* and *dm* fused; also the case in the putative copromyzines *Palaeolimisina* and *Palaeoceroptera*), reduction of the distal part of vein *M* (also reduced in *Palaeoceroptera*), and usually the loss of *cup*, elongation of the arista, and a head which is distinctly higher than long.

Sphaerocerinae plus Copromyzinae.—The Sphaerocerinae plus the Copromyzinae form a clade characterised by an epandrium with a deep (Copromyzinae) or complete (Sphaerocerinae) lateral cleft. The epandrial cleft is absent in one monophyletic group currently included in the Copromyzinae (a group including *Lotophila* Lioy, *Borborillus* Duda, *Dudaia* Hedicke, *Gymnometopina* Hedicke, *Metaborborus* Vanschuytbroek, and *Afroboborus* Curran) but, as interpreted by Norrbom and Kim (1984), the epandrial cleft has been lost in these genera. An epandrium that is completely di-

vided, presumably by development of the epandrial cleft, is one of several apomorphic characters defining the Sphaerocerinae, but the Copromyzinae is currently defined only on plesiomorphic characters (cells *bm* and *cup* complete, vein *M* reaching the wing margin, costa reaching the tip of vein *M*, long and telescoping female abdomen, strongly setose tibia, simple, narrow-based surstylus).

SUBFAMILIAL PLACEMENT OF *LIMOMYZA*

Limomyza species are very much like the Copromyzinae in general habitus, with long, telescoping female terminalia, inclinate inner orbital setulae, hind tibia with dorsal and ventral bristles, richly setose tibiae, and a fully developed cell *cup*. The male terminalia, with broadly fused, posteriorly lobate cerci; elongate, simple surstyli; and a large epiphallus are also more similar to copromyzines than most limosinines. These, however, are all plesiomorphic characters. One possible apomorphic character linking *Limomyza* to the Copromyzinae is the absence of a ring sclerite in the membrane of the male sixth abdominal segment. *Tucma* and most Limosininae have a translucent circular plate, usually ringed by a darkened sclerite, in the membrane immediately behind the sixth right spiracle of the male abdomen. This ring sclerite (possibly a large campaniform sensillum) is completely absent from *Limomyza*, copromyzines, and sphaerocerines. Despite the superficial similarity between *Limomyza* and Copromyzines, the loss of the ring sclerite is the only apparently apomorphic character supporting a relationship between *Limomyza* and all or part of the sphaerocerine-copromyzine lineage. On the other hand, three characters seem to support the inclusion of *Limomyza* in the Limosininae. The head is almost 1.5× as high as long, in contrast to most Copromyzinae, in which the head is usually almost as long as high. There is considerable variation in head shape within both groups, so the value of this character is questionable. The other two

characters suggesting that *Limomyza* belongs in the Limosininae are venational characters. It is largely on the basis of these characters, the lack of a closed cell *bm* and *M* not reaching the wing margin, that *Limomyza* is placed in the Limosininae.

Most other sphaerocerid genera with a closed cell *cup* but without a closed cell *bm* also belong in the Limosininae, and all such genera were included in this group (as Leptocerinae) by Hackman (1969). These include the *Archileptocera* genus-group (*Anomioptera* Schiner, *Archileptocera* Duda, and *Palaeocoprina* Duda), *Hellerella* Duda, *Palaeoceroptera* Duda, *Palaeolimosina* Duda, and *Palaeoceroptera* Duda. All of these taxa except *Anomioptera* have been treated as subgenera of *Archileptocera*, but are elevated to genus and keyed by Marshall (in press). *Palaeolimosina* and *Palaeoceroptera* are like *Limomyza* in having a copromyzine-like habitus. *Palaeolimosina* is known only from a single, damaged female specimen with short antennae and *M* reaching the wing margin, and probably belongs in the Copromyzinae. *Palaeoceroptera* is the genus most similar to *Limomyza*, but the one species of *Palaeoceroptera* known from males has an epandrial cleft, which suggests that this genus also belongs in the Copromyzinae, or at least in the sphaerocerine-copromyzine clade. Both *Palaeoceroptera* and *Palaeolimosina* are known only from the southern hemisphere, and lack the defining characters of *Limomyza* as listed below.

Following Cumming et al. (1995), and Wheeler (1995), terminology used here for some structures of the male and female terminalia differs from that of McAlpine (1981), and from this author's earlier papers on New World Sphaeroceridae. The term gonostylus is used for the structure previously referred to as the paramere, and the term subepandrial sclerite is used for the sclerite previously called sternite 10. Morphological terminology for female terminalia follows that of McAlpine (1981) with the exception of the terminal tergites and

sternites, here called tergite and sternite 10 rather than epiproct and hypoproct.

Limomyza Marshall, new genus

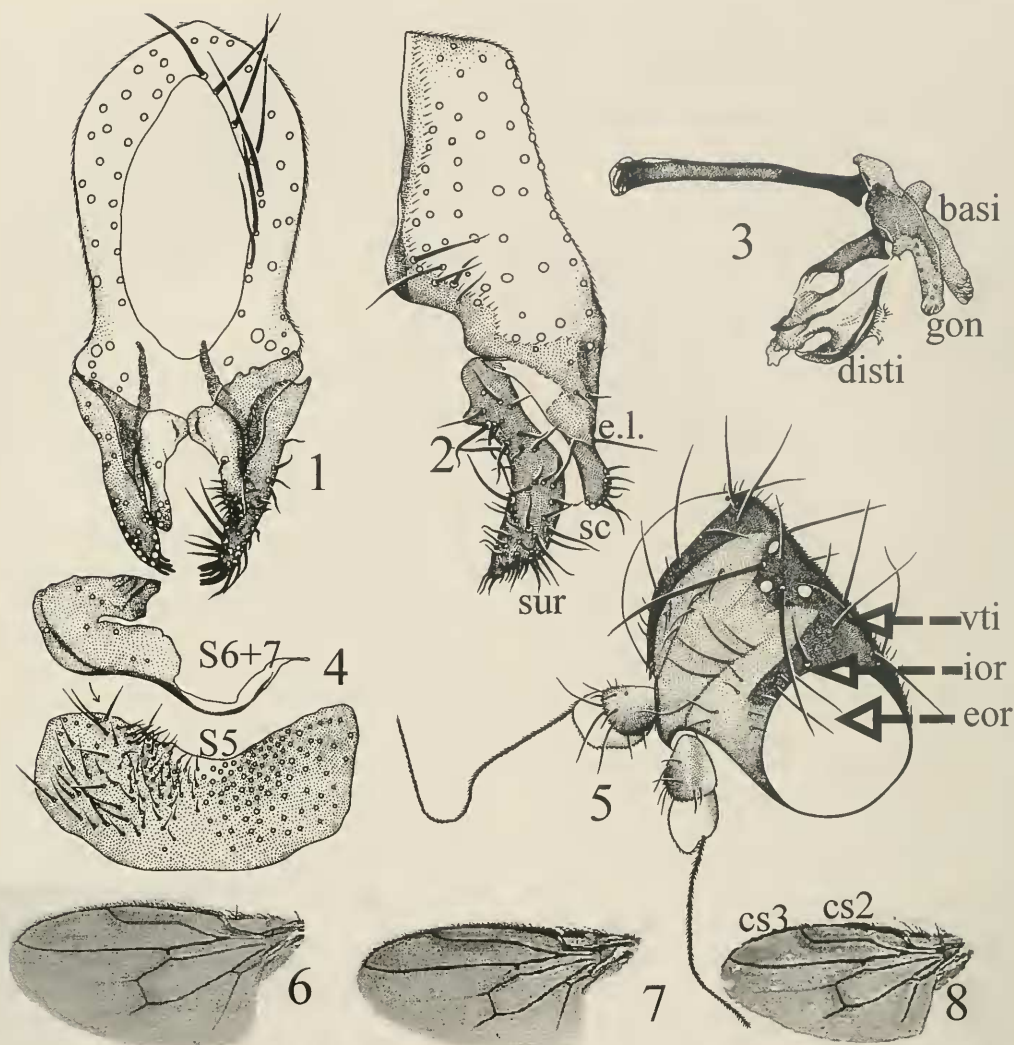
Type species: Limomyza cavernicola, New Species.

Defining and diagnostic characters.—*Limomyza* differs from all other sphaerocerids with a cell *cup* but no basal medial cell in having a mid-ventral hind tibial bristle, a bristle between the orbital and inner vertical bristles, and only one pair of (prescutellar) dorsocentral bristles. The absence of setae on the scutellar surface and the inclinate row of inner orbital setulae are also diagnostic.

Generic description.—Body length usually 3–5 mm; body color black to dark reddish brown; most of frons and antennae reddish, vertex, orbits, interfrontal strips, ocellar triangle, and middle of interfrontal area silvery pruinose. One or 2 rows of inclinate inner orbital setulae present midway between orbital and interfrontal bristles; a single inclinate orbital bristle present above upper exclinate orbital bristle, between upper orbital and inner vertical bristle (Fig. 5) (other sphaerocerids have 0–2 exclinate orbital bristles only, although some authors have called the inner vertical bristle an orbital bristle). Postocellar bristles cruciate; ocellar bristles strong. Face deeply concave, upper half carinate. Margin of labrum with a flat, triangular, pruinose median portion; clypeus black. First flagellomere apically flattened but not tapered; arista dorsal, hairs of medium length, arista slightly longer than head height. Eye 0.9–2.0× genal height. Mid tibia setose, upper surface with at least 3 anterodorsal bristles and 3 posterodorsal bristles, and 2–3 distal dorsal bristles (lower one large); lower surface with a midventral bristle, apex ringed with bristles. Hind tibia with a long, thin, distal dorsal bristle, a short midventral bristle, and a stout apical ventral bristle. Postpronotum with 2 bristles. Dorsocentral bristles in a single large prescutellar pair; acrostichal setulae long, dense, in 8–15 rows between dorsocentral areas. Scutellum broad, ca.

1.7× as broad as long, with 4 marginal bristles, disc microtrichose only. Halter pale. Wing with cell *cup* closed, vein Cu_2 strong; crossveins r-m and dm-cu separated by less than 1.5× length of dm; vein Cu_1 strong for some distance beyond crossvein dm-cu; R_{2+3} sinuate to sharply bent; C ending at apex of R_{4+5} ; alula narrow or of medium width.

Male abdomen (Limomyza sharkeyi known from ♀ only): Sternite 5 dark except for a pale posteromedial area, densely setulose near posteromedial area. Membrane around and behind 6th right spiracle unmodified. Synsternite 6+7 simple, laterally setulose, dorsolaterally contiguous with sternite 8; sternite 8 shining, mostly bare, articulating with the shorter, setulose, epandrium at 2 widely separated points. Epandrium densely setose, with some long lateral bristles. Subepandrial sclerite well-developed, simple. Cerci broadly fused to form a very long subanal plate, ventrally projecting to form lobes here referred to as subcerci; posterolateral parts of epandrium swollen behind surstylar base and variously projecting ventrally as epandrial lobes; posteroventral part of epandrial lobe overlapping base of prominent subcercus. Surstylus elongate, narrow base articulated with epandrium and broad hypandrial arm. Hypandrium forked posteromedially; hypandrial arms free from hypandrial apodeme. Basiphallus with elongate epiphallus as long as or almost as long as gonostylus; distal part of basiphallus very small. Gonostylus narrow and parallel-sided distally, apex blunt, slightly bent anteriorly; basal part of gonostylus slightly broader than distal part, with a truncate anteroventral lobe. Distiphallus with a dark, hooked basal part and equal-length pairs of distal dorsal and distal ventral lobes separated by a conspicuous concavity. Female genitalia (*Limomyza hirta* known from ♂ only): Tergites 1–5 broad, heavily sclerotized; tergites 6–8 very narrow, pale, telescoped into preabdomen; tergites 6 & 7 divided into entire anterior parts and tripartite posterior parts; tergite 8



Figs. 1-8. 1-4, *Limomyza archiptera*, male. 1, Terminalia, posterior. 2, Terminalia, left lateral, hypandrium removed. 3, Phallus and associated structures. 4, Sternites 5-7. 5, *L. cavernicola*, head. 6, *L. archiptera*, wing. 7, *L. cavernicola*, wing. 8, *L. venia*, wing. Abbreviations: basi = basiphallus; disti = distiphallus; e.l. = epandrial lobe; gon = gonostylus; S5 = sternite 5; sc = subcercus; sur = surstylus; S6+7 = synsternite 6+7; cs2 = second costal sector; cs3 = third costal sector; vti = inner vertical bristle; ior = inclinate orbital bristle; eor = excline orbital bristles.

entirely tripartite, lateral parts shining and relatively dark. Tergite 10 small, with 2 small bristles; cerci setulose and apically setose. Sternite 8 bipartite, each half posteriorly setulose and with 2-3 bristles; sternite 10 uniformly, sparsely setulose, with 2 longer bristles. Spermathecae (3) oval to

elongate, with transverse wrinkles, strongly tapered and usually curved basally.

Etymology: The name *Limomyza* is from a combination of the names of the type genera of Limosiniinae and Copromyziinae, and alludes to the copromyzine habitus of this limosinine genus.

BIOLOGY AND DISTRIBUTION OF *LIMOMYZA*

Collection records suggest that *Limomyza* species are primarily coprophagous, and that most species in the genus are associated with high elevations (over 2000 m) in Mexico and Central America. *Limomyza cavernicola*, which occurs in eastern and central United States, has been collected in caves.

KEY TO SPECIES OF *LIMOMYZA*

- 1. Eye very small, height less than genal height. Back of head densely setose, postocular bristles in double row on lower half and triple row on upper half. Proximal half of mid tibia with anterior and anterodorsal rows of bristles. Surstylus without row of bristles at apex (Figs. 16, 18). Known only from type locality in Durango, Mexico. *Limomyza hirta*, new species
- Eye larger, height at least 1.5× genal height. Postocular bristles forming a single row below and a double row near top of eye. Mid tibia with only anterodorsal and posterodorsal bristles proximally. Surstylus of known males with an apical row of stout bristles (Figs. 1, 10, 22). USA, Mexico and Central America. 2
- 2. Body length ca. 4 mm. Incline interfrontal setulae between orbital and interfrontal bristles extending at least up to level of upper interfrontal. Four large posterodorsal bristles on mid tibia. Pruinosity along posterior part of gena divided into small dorsal and extensive ventral parts. Mexico (Chiapas) and Guatemala (♀ only) *Limomyza sharkeyi*, new species
- Body length less than 3.5 mm. One row of 2–4 inclinate interfrontal setulae between lower orbital and interfrontal bristles; no setulae on upper half of frons. Three large posterodorsal bristles on mid tibia. Pruinosity continuous along posterior part of gena 3
- 3. Surstylus slender, width at 1/3 subequal to width at 2/3; distal comb on posterior surface and twice as long as maximum surstylar width (Fig. 21). Epandrial lobe acute. Mexico
. *Limomyza venia*, new species
- Surstylus slightly expanded and flattened distally, distal comb on posteroventral or ventral surface and less than twice as long as maximum surstylar width. Epandrial lobe blunt, strongly overlapping subcercus. 4
- 4. Second costal sector greater than 1.5× third costal sector; R2+3 weakly sinuate (Fig. 7). Distal comb of surstylus slightly longer than maximum surstylar width (Fig. 9). Eye ca. 1.6× genal height. USA
. *Limomyza cavernicola*, new species

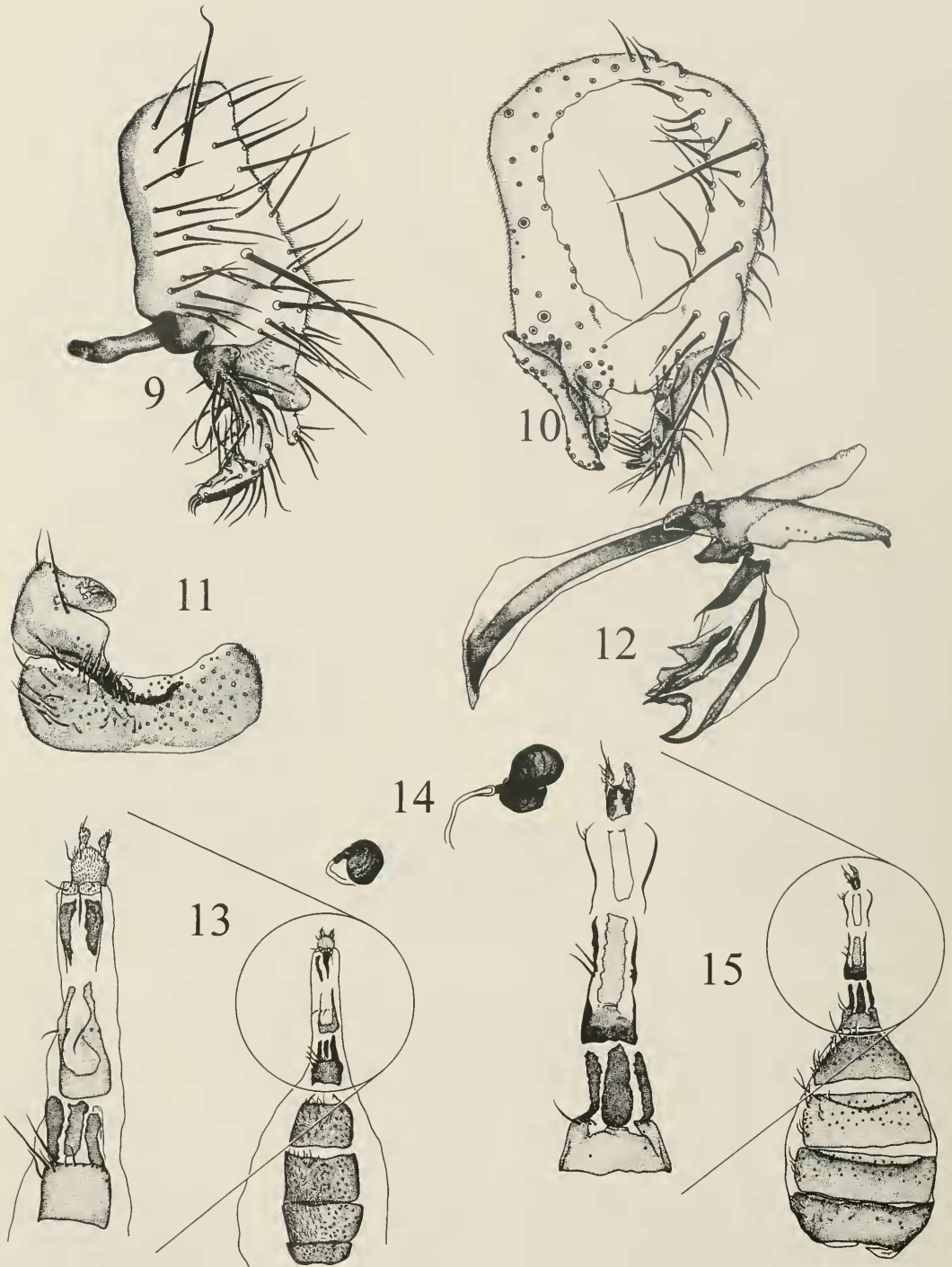
- Second costal sector less than 1.3× third costal sector; R2+3 strongly sinuate (Fig. 6). Distal comb of surstylus subequal to maximum surstylar width (Fig. 2). Eye ca. 2.1× genal height. Mexico
. *Limomyza archiptera*, new species

***Limomyza archiptera* Marshall,
new species
(Figs. 1–4, 6)**

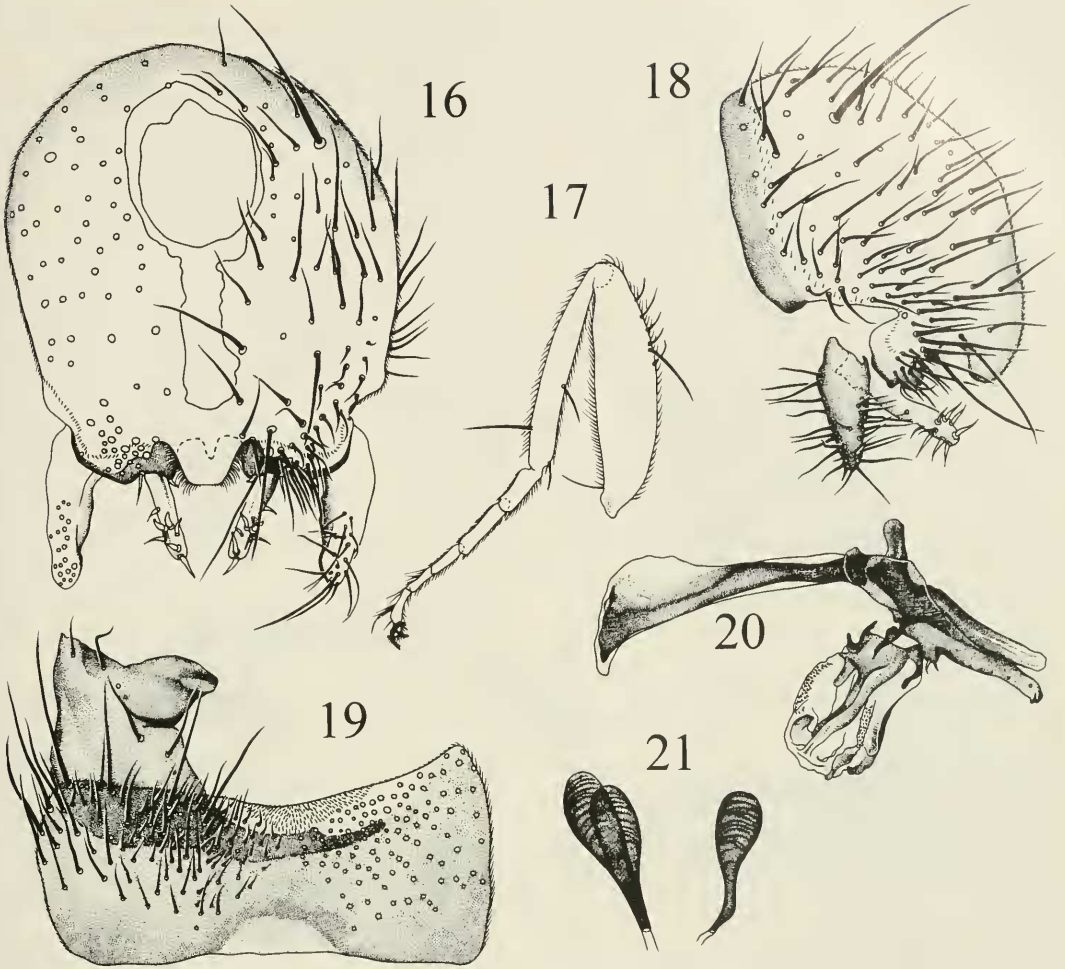
Body length ca. 3.0 mm; body Color black to dark reddish brown; tarsi, apices of tibiae and halteres pale. Interfrontal bristles in 4 long, equal pairs; a row of 2–3 inclinate inner orbital setulae present midway between orbital and interfrontal areas, uppermost setula at level of lower orbital bristle. Face deeply concave, upper half of face silvery pruinose. Eye 2.1× genal height; gena shining anterodorsally, silvery pruinose posteriorly and ventrally, pruinose area with a large anterior bristle and several setulae. Katepisternum with two large dorsal bristles, posterior bristle twice as long as anterior. Acrostichal bristles long, in 8–10 rows between dorsocentral areas. Wing with R2+3 conspicuously but gradually bent at basal third; second costal sector 1.2× length of third; distance between crossveins r-m and dm-cu 1.4× length of dm-cu; alula narrow.

Male abdomen: Epandrium densely setose, with long dorsolateral and posteroventral bristles. Subanal plate broad, posterior part with conspicuous, setose medial ventral lobes (subcerci) with one bristle proximally, distally with 3 posteromedial bristles and 4–5 smaller medial setae; epandrial lobes overlapping subcerci basally and distally. Surstylus elongate, narrow base articulated with epandrium and broad hypandrial arm; anteriorly curved at 2/3, distal part dark with dense row of 6–8 stout, dark bristles, row shorter than maximum surstylar width.

Holotype (♂, CNC) and 13 Paratypes (4 ♂, 9 ♀, GUE); MEXICO. GUERRERO, 4 mi W Mazatlan, 4800', 30.viii–5.ix.1971,



Figs. 9-15. *Limomyza cavernicola*. 9, Male terminalia, left lateral. 10, Male terminalia, posterior. 11, sternites 5-7, male. 12, Phallus and associated structures. 13, Female abdomen, ventral. 14, spermathecae. 15, Female abdomen, dorsal.



Figs. 16-21. 16-20, *Limomyza hirta*, male. 16, Terminalia, posterior. 17, Hind leg, left. 18, Terminalia, left, hypandrium removed. 19, Sternites 5-7. 20, Phallus and associated structures. 21, *L. sharkeyi*, spermathecae.

Oak, tropical deciduous forest, human dung, A. Newton.

Other paratypes: MEXICO. MEXICO. 1 mi E Ixtapan de la Sal, 6200', km 78, 31.viii-6.ix.1971, tropical deciduous forest, dung trap, A. Newton (1 ♂, 1 ♀, GUE).

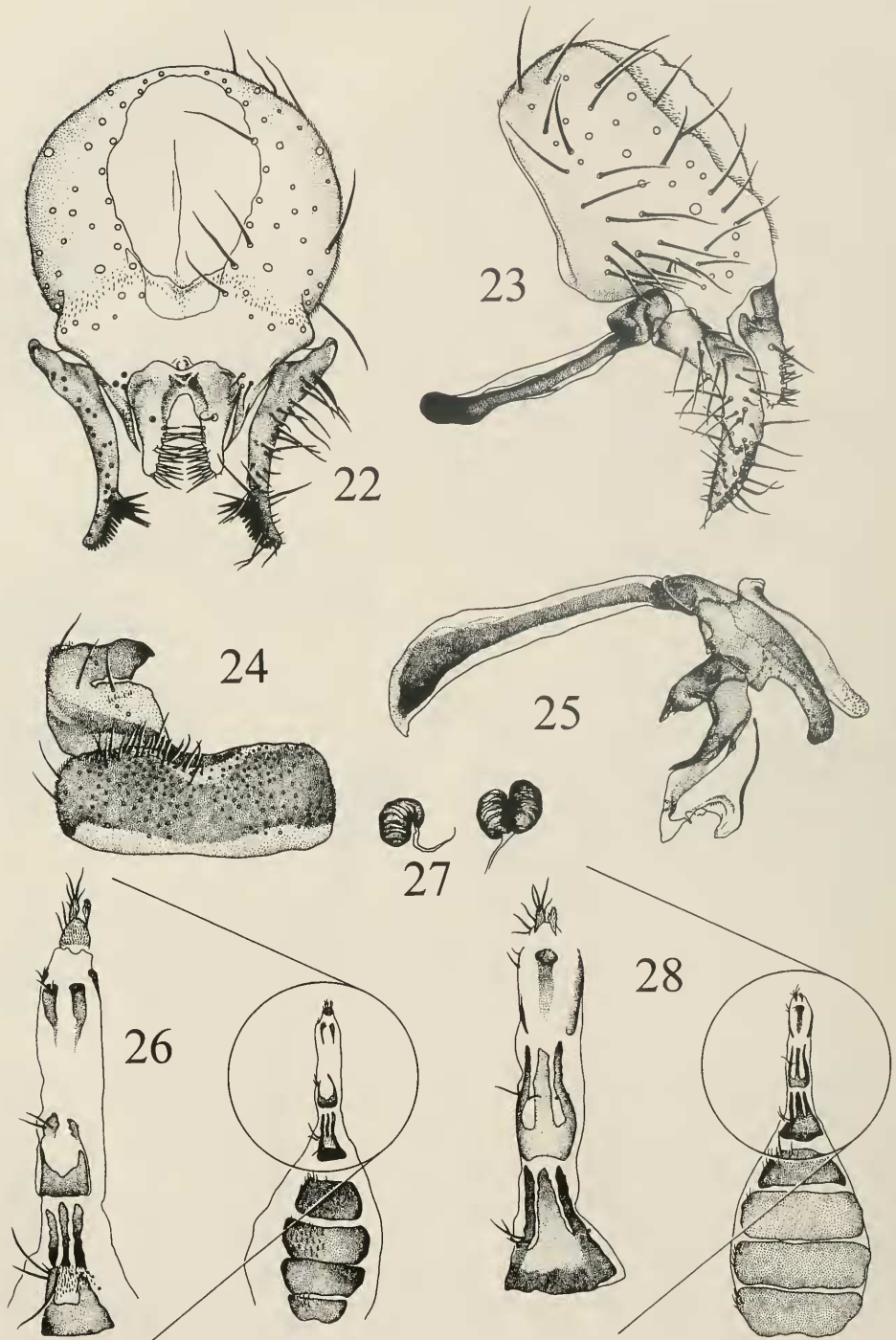
Etymology: The name *archiptera* refers to the primitive wing venation of the genus as a whole.

Comments: *Limomyza archiptera* is externally similar to *Limomyza venia*, differing primarily in features of the male genitalia. The surstyli of these species are distinctly different.

Limomyza cavernicola Marshall,
new species

(Figs. 5, 7, 9-12)

Body length ca. 3.0 mm; body Color black to dark reddish brown; tarsi, apices of tibiae and halteres pale. Interfrontal bristles in 4-5 long, equal pairs; a row of 3-4 inclinate inner orbital setulae present midway between orbital and interfrontal strips, uppermost setula at level of lower orbital bristle. Face deeply concave, upper half silvery pruinose. Eye 1.6× genal height; gena shining anterodorsally, silvery pruinose anterovertrally, pruinose area with a large an-



Figs. 22-28. *Limomyza venia*. 22, Male terminalia, posterior. 23, Male terminalia, left lateral. 24, Sternites 5-7, male. 25, Phallus and associated structures. 26, Female abdomen, ventral. 27, Spermathecae. 28, Female abdomen, dorsal.

terior bristle and several setulae. Katepisternum with two large dorsal bristles, posterior bristle twice as long as anterior. Acrostichal setulae in about 8–10 rows between dorsocentral areas. Wing with R2+3 sinuate, gradually curved up to costa near apex, second costal sector 1.7× length of third; distance between r-m and dm-cu 1.6× length of dm-cu; alula narrow.

Male abdomen: Epandrium densely setose, with long dorsolateral and posteroventral bristles. Subanal plate broad, posterior part with conspicuous, setose ventral lobes (subcerci) medially, epandrial lobes ventrally rounded, pale, basally overlapping subcercus; subcercus with 1 posterior bristle basally, distally with 3 posterodorsal bristles and a row of ca. 9 medial setae. Surstylus gradually curved anteriorly, distal part broad, with inner row of 13–14 stout, dark bristles, row ca 1.5 times as long as maximum surstylar width.

Holotype (♂, CNC): UNITED STATES. KENTUCKY. Edmonson Co., Mammoth Cave National Park, Running Br., 17–25.vi.1973, forest dung trap, S. Peck.

Paratypes: UNITED STATES. COLORADO. Larimer Co., 5,8,22.viii,30.ix.1996, S. Fitzgerald (8 ♂, 4 ♀, CSU). MISSOURI. Texas Co., 10.5 mi NW Licking, unnamed cave, 14.vi.1989, J.E. Gardner (3 ♂, 3 ♀, GUE); OKLAHOMA. Caddo Co., 0.5 mi. S. Hinton, Redrock Canyon State Park, 2–3.viii.1984, dung trap, B.V. Brown (1 ♂, GUE); Murray Co., Chickasaw National Recreation Area, 24.v.1991, J.E. Swann (1 ♂, GUE).

Etymology: The specific name refers to the association of *L. cavernicola* with caves.

Comments: *Limomyza cavernicola* is externally very similar to *Limomyza venia* and *Limomyza archiptera*. These species can be most reliably separated on the basis of the surstylus, but *L. cavernicola* also differs from *L. venia* and *L. archiptera* in having relatively small eyes, presumably associated with its hypogean habits. *Limomyza hirta*, a species of unknown biology which is

easily distinguished from *L. cavernicola* by characters given in the key, also has very small eyes.

Limomyza hirta Marshall, new species
(Figs. 16–20)

Body length ca. 5.0 mm; body color black to dark reddish brown; antennae and most of pleuron reddish. Interfrontal bristles in 6–7 long, equal pairs; 2 rows of inclinate inner orbital setulae present midway between lower orbital and interfrontal bristles, inner row of ca 8 bristles extending up to level of ocellar bristle. Postocellar bristles convergent but equally long divergent postocular bristles present immediately behind postocellar bristles (the postocular bristles form a dense double or triple row behind the eye then extend across the back of the head as a sparse single row). Face deeply concave, pruinose; lateral margin of face and clypeus black. Eye 0.9× genal height; gena entirely pruinose, with a large anterior bristle and several setulae forming 4 rows on ventral half. Katepisternum with a large posterodorsal bristle and 2 very small anterodorsal bristles less than 1/3 as long as posterodorsal bristle. Upper surface of mid tibia with a row of anterior bristles paired with the usual anterodorsal bristles on the proximal half of the tibia. Acrostichal setulae long, in about 15 rows between dorsocentral areas. Wing with R2+3 conspicuously but gradually bent at basal third; second costal sector 2.2× length of third costal sector; distance between r-m and dm-cu 2.6× length of dm-cu.

Male abdomen: Epandrium densely setose, with long dorsolateral bristles. Subanal plate very broad, posterior part with a prominent, microsetulose median process; subepandrial sclerite with a smaller, bare, median process. Posterolateral corners of epandrium forming subquadrate, setose lobes (epandrial lobes): narrow posteroventral lobes (subcerci) overlapped by epandrial lobes, bent posteriorly, parallel sided, distally rounded with ca 8 bristles. Surstylus simple, elongate-triangular, with long

anterior bristles. Gonostylus narrow and gradually tapering distally, apex blunt, bicarinate.

Holotype (♂, CNC): MEXICO. DURANGO. 10 mi W El Salto. 13.vii.1964, H.F. Howden.

Etymology: The specific name refers to the hirsute appearance of this large, distinctive species.

Comments: *Limomyza hirta* can be easily separated from congeners by the double row of postocular bristles, the extra row of anterior mid tibial bristles, the large size, the distinctive wing venation with a very long second costal sector, or by the surstylus which lacks the apical comb row characteristic of congeners.

***Limomyza sharkeyi* Marshall,
new species
(Fig. 21)**

Body length ca. 4.0 mm; body Color black to dark reddish brown; face and lower frons reddish, antennae and tarsomeres pale, orange; halter very pale. Interfrontal bristles in 4 long, equal pairs; 2 rows of inclinate inner orbital setulae present midway between lower orbital and interfrontal bristles, inner row of ca 6 bristles extending up to level of ocellar bristle. Postocellar bristles convergent. Postocular bristles in a dense single row behind the eye and a double row above the eye. Face slightly concave, pruinose on upper half; lateral margin of face and clypeus brown. Eye 2.0× genal height; gena silvery pruinose on lower half, upper half shining except for small posterodorsal pruinose area, with a large anterior bristle and several setulae forming 4 rows on ventral half. Katepisternum with a large posterodorsal bristle and an anterodorsal bristle ½ as long as posterodorsal bristle. Upper surface of mid tibia with small proximal anterodorsal and posterodorsal bristles in addition to the usual 5 anterodorsal and 4 posterodorsal bristles, and one small anterior bristle at middle. Acrostichal setulae long, in about 10 rows between dorsocentral areas. Wing with R2+3 conspicuously

but gradually bent in basal third; second costal sector 1.5× length of third; distance between crossveins r-m and dm-cu twice as long as length of dm-cu; alula of medium width. Spermathecae elongate, with long straight bases in contrast with the short, curved bases of known congeneric females.

Holotype (♀, CNC): GUATEMALA. SAN MARCOS. San Antonio, 8000', Sacatepequez, 29.ix.1987, M. Sharkey.

Paratype: MEXICO. CHIAPAS, Municipio El Porvenir, between El Porvenir and Siltepec, N. Slope Cerro Male, 2134–743 m, 19-ix.1976, D.E. and J.A. Breedlove (1 ♀, CAS).

Etymology: This species is named after Mike Sharkey, who has generously allowed me to study the flies from his insect trap catches.

Comments: Although it is generally undesirable to describe species of Sphaeroceridae from females only, these large *Limomyza* specimens are obviously different from all congeners. The chaetotaxy of the mid tibia, size, spermathecae, pruinosity of the gena, and inner orbital bristles all appear to be diagnostic, although the spermathecae are unknown for one congener (*L. hirta*).

***Limomyza venia* Marshall, new species
(Figs. 8, 22–28)**

Body length ca. 3.0 mm; body color black to dark reddish brown; tarsi, apices of tibiae and halteres pale. Interfrontal bristles in 4–5 long, equal pairs; a row of 3–4 inclinate inner orbital setulae present midway between orbital and interfrontal areas; uppermost setula at level of lower orbital bristle. Face deeply concave, upper half of face silvery pollinose. Eye 2.0× genal height; gena shining anterodorsally, silvery pruinose anteroventrally, pruinose area with a large anterior bristle and several setulae. Katepisternum with two large dorsal bristles, posterior bristle twice as long as anterior. Acrostichal setulae in about 8–10 rows between dorsocentral areas. Wing with R2+3 sharply bent up at basal third;

second costal sector 1.3–1.4× as long as third; distance between crossveins r-m and dm-cu 1.2–1.3× length of dm-cu; alula narrow.

Male abdomen: Epandrium densely setose, with long dorsolateral and posteroventral bristles. Subanal plate broad, posterior part with conspicuous, setose ventral lobes (subcerci) medially, epandrial lobes ventrally narrow, acute, pale; subcercus with 1 posterior bristle basally, distally with 3 posterdorsal bristles and a row of ca. 9 medial setae; epandrial lobe not conspicuously overlapping subcercus basally. Surstylus elongate, sharply bent at 1/3, distal part with inner row of 13–14 stout, dark bristles, row over twice as long as maximum surstylar width.

Holotype (♂, CNC) and 90 Paratypes (48 ♂, 42 ♀, GUE, FLD): MEXICO. MEXICO. 1 mi NE Tenancingo, 7100', 31.viii–6.ix.1971, Oak -Pine, human dung trap, A. Newton.

Other paratypes: MEXICO. MORELOS. 4 mi W Tres Cumbres, 9000', 29.viii–4.ix.1971, Oak, human dung trap, A. Newton (6 ♂, 3 ♀, GUE).

Etymology: The name of this species is to be considered an arbitrary combination of letters.

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